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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/827,285 | 04/20/2004 | Te-Fu Chen | 0941-0947PUS1 | 2646 |
| 2292 | 7590 | 09/22/2005 | EXAMINER | |
| BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747 | | | HANAN, DEVIN J | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3745 | |

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/827,285 | CHEN ET AL. | |
| | Examiner Devin Hanan | Art Unit 3745 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-12 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-12 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 20 April 2004 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____. | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the motor in claim 7 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6-10 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagai et al. (U.S. Patent 4,647,271).

Nagai et al. discloses an impeller with a hub (42) having an upper surface and a center point (axis of rotation) and a plurality of blades (43) having bottom portions arranged in a circle on the upper surface (upper part of hub 42) with respect to the center point.

Regarding claim 2, Nagai et al. discloses all of the elements of claim 1 and impeller blades (43) formed into an annular structure having an outer diameter greater than that of the hub (figure 27, equivalent to figure 23 without hub ring 46).

Regarding claim 3, Nagai et al. discloses all of the elements of claim 1 and 2 and an impeller with a hub having a sidewall (45b) and the bottom portion of each blade has a portion extending downward along sidewall (figure 27).

Regarding claim 4, Nagai et al. discloses all of the elements of claim 1 and an impeller with blades having an outer diameter equal to that of the hub (figure 23).

Regarding claim 6, Nagai et al. discloses all of the elements of claim 1 and that the impeller hub and blades that are integrally formed (col. 1 lines 15-20).

Regarding claim 7, Nagai et al. discloses a fan (from figure 1) with a frame (1),

Art Unit: 3745

a motor (5),

a hub (42), disposed in a frame and containing the motor therein having an upper surface and a center point (axis of rotation) and

a plurality of blades (43) having bottom portions arranged in a circle on the upper surface with respect to the center point (axis of rotation).

Regarding claim 8, Nagai et al. discloses all of the elements of claim 7 and the blades have an outer diameter greater than the hub (figure 27).

Regarding claim 9, Nagai et al. discloses all of the elements of claim 8 and the hub (42) has a sidewall and the blade (43) extends down along the sidewall (figure 27)

Regarding claim 10, Nagai et al. discloses all of the elements of claim 7 and discloses the outer diameter of the blades to be equal to the diameter of the hub (figure 23).

Regarding claim 12, Nagai et al. discloses all of the elements of claim 7 and that the hub and blades are integrally formed (col. 1 lines 15-20).

Claims 1, 5, 7 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Wagner (U.S. Patent 2,253,406).

Wagner discloses an impeller with a hub (11) having an upper surface and a center point (axis of rotation) and a plurality of blades (17) having bottom portions arranged in a circle on the upper surface (right side of 11) with respect to the center point.

Regarding claim 5, Wagner discloses blades formed into an annular structure having an outer diameter less than that of the hub (figure 1 has rim 35 that extends beyond the blades).

Regarding claim 7, Wagner discloses a fan with a frame (col. 2 line 47), a motor (col. 1 line 33), a hub (11) disposed in the frame and containing the motor therein, having an upper surface (right side of 11) and a center point (axis of rotation) and; a plurality of blades (17) having bottom portions arranged in a circle on the upper surface with respect to the center point (figure 1).

Regarding claim 11, Wagner discloses all of the elements in claim 7 and discloses blades formed into an annular structure having an outer diameter less than that of the hub (figure 1 has rim 35 that extends beyond the blades).

Prior Art

The patent to Wang (U.S. Patent 5,988,979) is cited for its teaching of blades (25) the width of the hub (21).

The patent to Bostwick (U.S. Patent 6,514,052) is cited for its teaching of blades (16) that extend down a sidewall of a hub (26).

The patent to Takeuchi et al. (U.S. Patent 6,659,724) is cited for its teaching of blades (212) that are on the upper face and the sidewall of a hub (211).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devin Hanan whose telephone number is 571-272-6089. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on 571-272-4820. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Devin Hanan
Patent Examiner
Art Unit 3745



EDWARD K. LOOK
SUPERVISORY PATENT EXAMINER
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9/19/05